
Cork Clearwing Moth Project

Ken Bond



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**An Roinn Tithíochta,
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Introduction

The status of Irish moths of the family Sesiidae (Clearwings) is poorly known. Although the Irish Clearwing species have been known since the 19th Century, there is very little recent information on their occurrence or habits. The moths fly by day, so are not attracted to light-traps (the method by which the vast majority of Irish moth records are now obtained); most of them are small, and some are probably overlooked as small flies in flight. As a result, they are almost certainly overlooked in many areas. The object of the project is to increase our information on the species, primarily by using the current method of employing pheromone lures.

Current knowledge of the Irish Clearwing species treated in this survey

Five species of the family Sesiidae are currently recognised as occurring in Ireland, *viz.*

Sesia bembeciformis (Hübner, 1797) LUNAR HORNET MOTH
Synanthedon scoliaeformis (Borkhausen, 1794) WELSH CLEARWING
Synanthedon formicaeformis (ESPER, 1783) RED-TIPPED CLEARWING
Synanthedon tipuliformis (Clerck, 1759) CURRANT CLEARWING
Pyropteron muscaeformis (Esper, [1783]) THRIFT CLEARWING)

The Lunar Hornet Moth is widely recorded in Ireland, at least in the North and East, and was therefore excluded from this survey.

Literature records and more recent reports of the four Clearwing species covered in this report.

Welsh Clearwing – *Synanthedon scoliaeformis* (Borkhausen, 1789).

“Cromaglaun Glen, Killarney, is the locality where Mr. Birchall found birch trees infested, he believed, with this species, but he did not get the imago. I also noticed similar traces in the same neighbourhood in 1885, but saw no imagines” (Kane, 1901).

“Rare and very local. Restricted as at present known to Killarney and Kenmare, Kerry. Birchall and Kane found the larvae infested birches here, and subsequently Kane took three specimens at the former place” (Donovan, 1936).

“Freshly-emerged imagos may be found on the trunks of these [old birch] trees in the early morning during July. Examples taken by me, 11/17.vii.47, are considerably larger than Scottish (Rannoch) specimens taken some 50 years ago” (Baynes, 1964). The NBDC map for this species includes records from the Glencar area, Co. Kerry; see online at: (<https://maps.Biodiversityireland.ie/Map/Terrestrial/Species/78621>).

During the summer of 2021 Welsh Clearwing was found at a pheromone lure at Coolea, West Cork (Colin Hamilton, pers. comm., Sept. 2021).

Red-tipped Clearwing – *Synanthedon formicaeformis* (Esper, [1783]). Not mentioned in Kane (1901). “*Sesia formicaeformis* was inserted by Birchall in his ‘Catalogue of the Lepidoptera of Ireland,’ with the note – ‘Mr. Halliday. -No information as to locality.’ It is not surprising that Mr. Kane refused the species a place in his recent list. But it must now be acknowledged as a genuine member of our fauna, as Col. J. W. Yerbury, who has been collecting in the past summer in the South-west of Ireland, took two males at Glengarriff on June 13th. By his generosity they are now in the Dublin Museum” (Carpenter, 1902).

“Quite recently I received from Mr. L. W. Newman, of Bexley, an example of *Sesia formicaeformis*, bred July, 1920, from Co. Kerry; this is an addition to the list of our native Lepidoptera” (Greer, 1920).

“In my notes in the Irish Naturalist for December, 1920, I stated that this insect was new to the Irish list of Lepidoptera; this is an error, as I quite overlooked the capture of two examples by Col. J. W. Yerbury at Glengarriff in June, 1921, and recorded by Prof. Carpenter in this magazine for January. 1902. My specimen is from the Kenmare district, where Mr. A. E. L. Sabine found the larvae not uncommonly in stems of willows growing in exposed situations. No doubt it has a wide range in the South of Ireland” (Greer, 1921).

“Scarce. Very local . . . Kerry: Near Kenmare, larvae and pupae found in willow stems and twigs, chiefly in wild exposed places where willows are stunted. Fine series bred (L.A.E. Sabine, in litt., 22/11/20.)” (Donovan, 1936).

The Red-tipped Clearwing – *Synanthedon formicaeformis* (Esper, [1783]).

Not mentioned in Kane (1901). “Scarce. Very local. Kerry: Near Kenmare, larvae and pupae found in willow stems and twigs, chiefly in wild exposed places where willows are stunted. Fine series bred (L.A.E. Sabine, in litt., 22/11/20.) Also near Kenmare, imago bred from willow twigs (Greer). Cork: Glengarriff, two males. Captured by Colonel J. W. Yerbury and are in the Dublin museum (Carpenter, Irish Nat., 1902, p. 19)” (Donovan, 1936). The following manuscript entry has been added to Donovan’s account: “LOUTH. E. of Essexford 1.7.1943 2 spp. (Stelfox. I.N.J. VIII. p. 308)”.

“Mr. H. C. Huggins” has specimens labelled L. W. Newman, Sligo, 1920 and he himself obtained larval workings in willow in the Coomarkane Valley, near Glengarriff. The species seems to be not uncommon in this area, where the author found larval workings and bred the moth from near the town of Glengarriff, iv.53, from the Coomhola Valley, iv.54, and from Gougan Barra, vi.53” (Baynes, 1964). Also recorded from a few well separated localities in Ireland” (Baker, 1985). The distribution map in Baker (*loc. cit.*) indicates its occurrence in Co. Sligo. The NBDC distribution map shows several widely distributed locations from Sligo southwards to Tramore, Co. Waterford (<https://maps.biodiversityireland.ie/Map/Terrestrial/Species/78625>).

Currant Clearwing – *Synanthedon tipuliformis* (Clerck, 1759). Kane (1901) writes “Common” near Dublin, and elsewhere found in Ireland [Derry Campbell]. Donovan (1936) repeats

Kane's remarks and has "Rare". "At present recorded from two counties only as common near Dublin (Birchall and Kane); Dublin district, not common (Westropp): Lucan (Dunlop)". "Subsequently, a specimen was recorded from his [Donovan's] sister's garden, Ummerra, Timoleague, Co. Cork, 18.vi.42. Mr. Dudley Westropp used to find it fairly frequently in his garden at Clonskeagh, Dublin. The moth has also been recorded from Rathgar (A. W. Stelfox), Rathmines (A. M. Gwynn), and Seapoint, Co. Dublin (B. P. Beirne), (Baynes, 1964).

"Scattered records from Ireland"; occurrence in North Kerry and West Cork indicated on distribution map (Baker, 1985). The National Biodiversity Data Centre (NBDC) map for this species indicates three other recent records of this species: from Ennis, Co. Clare, Carrick-on-Suir, Co. Waterford; and at two sites near Cork City (<https://maps.biodiversityireland.ie/Species/78619>).

Thrift Clearwing – *Pyropteron muscaeformis* (Esper, [1783]).

"Mr. Gregson is said to have taken a specimen at Howth. I found it on the Saltee Islands, Co. Wexford, where, however, it was scarce" (Kane, 1901).

"I should say widely spread and common all along the Irish coast, although the records at present available notify it at Howth Co. Dublin (Gregson and Westropp); Saltee Island (Kane); Coast near Ferns, Co. Wexford (Greene). I have met with it, especially as larvae in Sea Thrift, from Cork Harbour, westwards all along the south coast to the Dingle peninsula, Kerry; also in Co. Clare, near Blackhead, and Langham reports two imagines from the cliffs of Moher in the same county. This little Clearwing flies in numbers, when the sun is out, among rocks where the Thrift grows; some settle on the flowers of the plant, a few are obtained *in copula* thereon. In about half a mile of coast near Courtmacsherry, Co. Cork, I found eighteen pupae on 10th June, 1901, and seven dozen two days later, in dead plants of *Armeria*. In the box wherein these pupae were kept, it was observed that the newly emerged imagines hid among the cocoon-containing portions of Thrift and jumped and skipped about when the tufts were removed" (Donovan (1936).

"The only recent record is Zetland Cove, near Glengarriff, Co. Cork, very local and scarce" (Baynes, 1964). "Southern Ireland" (Baker, 1985). The NBDC map for this species shows recent records from only The Burren, Co. Clare, and Cape Clear Island, West Cork (Bond) (<https://maps.biodiversityireland.ie/Map/Terrestrial/Species/80523>).

The historical literature also contains Irish records of the following three Sesiidae. The first of these, *Sesia apiformis*, is currently considered extinct in Ireland, while there is considered to be insufficient evidence to accept the Irish occurrence of the other two:

Sesia apiformis (Clerck, 1759) HORNET MOTH

Synanthedon culiciformis (Linnaeus, 1758) LARGE RED-BELTED CLEARWING

Synanthedon myopiformis (Borkhausen, 1789) RED-BELTED CLEARWING

Methodology

During June, July and August in 2021, visits were made to potential sites in West Cork, South Cork, Cork City and North Cork to place lures at sites on plants such as Current/Gooseberry

bushes, Sallow, Birch or Sea Thrift. In recent years the use of pheromone lures has been found to be highly successful in attracting the males of target moth species. The application of lures has largely been aimed at recording and assessing the abundance of pest species, but it has also included the targeting of little-known or rare species, especially those which are unlikely to be found at light-traps. This has greatly expanded our knowledge of the abundance and distribution of such species. Pheromone lures for the four species were ordered and obtained from Anglian Lepidopterist Supplies, and received early in June 2021. The lures, which consisted of rubber bungs impregnated with pheromone, were placed on twigs or branches on, or very close to the relevant food plants, usually attached by a thread, but in the case of the Thrift Clearwing the following method was also applied: a lure was placed inside a sawn-off clear plastic bottle, to allow for the moth to be clearly observed, and if necessary caught for reference purposes.

Results

Surveys up to mid-July were carried out mainly by the author and a team of volunteers. Table 1 presents the data collected from the author and the team of volunteers.

Target Species	Date	Location	Grid Ref.	results	Recorder
Red-tipped Clearwing	14 June 2021	Coolkellure	W158536	nil	Ken Bond
Red-tipped Clearwing	14 June 2021	Manch Woodland	W310537	nil	Ken Bond
Red-tipped Clearwing	17 June 2021	Tramore Valley Park	W684692	nil	Ken Bond
Red-tipped Clearwing	19 June 2021	Glashaboy South	W625866	nil	Ken Bond
Thrift Clearwing	27 June 2021	Lion's Cove, Donaghmore	W459376	nil	Ken Bond
Thrift Clearwing	27 June 2021	Leganagh Point, Seven Heads	W508356	3 specimens	Ken Bond
Thrift Clearwing	27 June 2021	Dunworley	W480370	1 specimen	Ken Bond
Welsh Clearwing	29 June 2021	Cappagh Wood, Killavullen	W647978	nil	Ken Bond
Red-tipped Clearwing	1 July 2021	Kilcolman Fen	R583109	nil	Ken Bond
Currant Clearwing	3 July 2021	Maryborough (Douglas)	W710692	nil	Ken Bond
Thrift Clearwing	4 July 2021	Barry's Head	W727499	nil	Ken Bond
Currant Clearwing	8 July 2021	Ballymaloe House	W951679	nil	Ken Bond
Thrift Clearwing	8 July 2021	Ballycotton Cliffs	W993634	nil	Ken Bond
Thrift Clearwing	14 July 2021	Galley Head	W340318	nil	Ken Bond
Currant Clearwing	09/08/2021	Killavullen	W645993	nil	Melanie Mangan
Currant Clearwing	10/08/2021	Killavullen	W645993	nil	Melanie Managan
Thrift Clearwing	03/08/2021	Owenahincha	W300351	nil	Melanie Managan
Red-tipped Clearwing	03/08/2021	Rosscarbery	W297353	nil	Melanie Managan
Welsh Clearwing	04/08/2021	Glengarriff	V916566	nil	Karl Woods
Welsh Clearwing	04/08/2021	Glengarriff	V908567	nil	Karl Woods
Welsh Clearwing	04/08/2021	Glengarriff	V896568	nil	Karl Woods
Welsh Clearwing	04/08/2021	Glengarriff	V907575	nil	Karl Woods
Red-tipped Clearwing	06/08/2021	Inchybridge	W464457	nil	Karl Woods

Thrift Clearwing	07/08/2021	Barry's Head	W727500	nil	Karl Woods
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Table 1 Results of pheromone lure use by all surveyors

Location	Grid Reference	Date	Time (BST)	Weather	Notes
South Ring, Clonakilty	W412382	29/06/2021	17:11	Sunny, dry, warm	Bank/wall dominated by cushions of Thrift (<i>Armeria maritima</i>) on coastal path near headland
Galley Head Ardfield	W340318	30/06/2021	13:32	Sunny, warm	Bank/wall dominated by cushions of Thrift near car park

Table 2.. Locations of **successful** use of HYL pheromone by John Deasy for Thrift Clearwing

Location	Grid Reference	Date	Time (BST)	Weather	Notes
Long Strand, Castlefreke,	W338334	30/06/2021	16:08	Sunny, warm, dry	Bank/wall dominated by cushions of Thrift over low sedimentary cliff
Downeen Point, Rosscarbery	W298347	30/06/2021	14:25	Sunny, warm, dry	Rocky cliffs with scattered Thrift and bank with Thrift
Barley Cove, Mizen Head	V769253	11/07/2021	12:27	Mainly overcast occasional with sunny spells, warm dry	Rocky headland with scattered Thrift
Mizen Head Visitor Centre	V741235	11/07/2021	16:40	Mainly overcast occasional with sunny spells, warm dry	Broken ground next to visitor centre with scattered Thrift

Table 3. Locations of **unsuccessful** use of HYL pheromone by John Deasy for Thrift Clearwing

Location	Grid Reference	Date	Time (BST)	Weather	Notes
Reacarrigeen, Ballinascarthy	W434460	17/07/2021	14:39	Sunny, warm, dry	Freshwater marsh, willow scrub, wet grassland mosaic
Beal na Blath, Kilmurry	W409627	23/07/2021	16:50	Sunny, warm, dry	Willow scrub next to stream adjacent to ambush site memorial. At least 3 individuals.
Reacarrigeen, Ballinascarthy	W434460	25/07/2021	14:00	Sunny, warm, dry	Freshwater marsh, willow scrub, wet grassland mosaic. At least 3 individuals. Specimen collected for K. Bond on request.

Table 4 Locations of **successful** use of FOR pheromone by John Deasy for Red-tipped Clearwing

Location	Grid Reference	Date	Time (BST)	Weather	Habitat Notes
Murragh Bridge, Enniskeane	W381541	23/07/2021	17:03	Sunny, warm, dry	Willows along riparian zone of Bandon River
Clogheen marsh, Clonakilty	W379386	24/07/2021	12:54	Sunny, warm, dry	Willows along drain on southern side of Clogheen Marsh

Inchybridge, Timoleagus	W467457	18/07/2021	11:45	Sunny, warm, dry, breezy	Willow scrub in marsh/wet grassland meadow downstream of bridge
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Table 5. Locations of **unsuccessful** use by John Deasey of FOR pheromone for Red-tipped Clearwing

Conclusions and recommendations

The selective use of Pheromone lures produced mixed results, but included some very useful records, confirming that some of these species have been overlooked in recent years. In particular, the Thrift Clearwing moth has been shown to occur widely on parts of the Cork coast. Being now confirmed from these precise locations, the opportunity of searching for the larva in May, as described in Baker (1985) arises. The Red-tipped Clearwing has also been recorded at new sites, and this again provides an opportunity for searching for the larva and its workings in Spring, as illustrated by von Scholley-Pfab (2021). The results of the Currant Clearwing searches were disappointing, but this may be largely due to our lack of knowledge of the history of the survey sites, *e.g.* age of currant bushes, and whether they have been treated with insecticides. Although Welsh Clearwing was not recorded during this survey, a new site for this highly localised species was discovered independently in West Cork (see above). One aspect that probably received insufficient attention is the need for sunny conditions for Clearwing moth flight activity. Much of the sampling, at least up to mid-July, was carried out in cloudy conditions, or in shaded locations.

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